

UNIT	Item Description	Unit	Quantity
1.0	PIPE		
1.1	Pipe, Beveled end, Seamless, Single Random Length, ASTM A-106 Gr. B / API 5L Gr. B, as per ASME B 36.10		
i	Dia. 10", Sch.40,	Meter	80
ii	Dia. 6", Sch.40,	Meter	500
iii	Dia. 4", Sch.40,	Meter	50
iv	Dia. 2", Sch.40,	Meter	100
2.0	ELBOWS		
2.1	Elbow 90° , Long Radius, B.W, ASTM A-234 Gr. WPB as per ASME B16.9		
i	Dia. 10" , Sch. 40	Nos.	20
ii	Dia. 6" , Sch. 40	Nos.	60
iii	Dia. 4" , Sch. 40	Nos.	30
iv	Dia. 2" , Sch. 40	Nos.	30
2.2	Elbow 45° , Long Radius, B.W, ASTM A-234 Gr. WPB as per ASME B16.9		
i	Dia. 10" , Sch. 40	Nos.	10
ii	Dia. 6" , Sch. 40	Nos.	30
iii	Dia. 4" , Sch. 40	Nos.	20
iv	Dia. 2" , Sch. 40	Nos.	20
3.0	TEE		
3.1	Equal Tee. B.W, ASTM A-234 Gr. WPB as per ASME B16.9		
i	Dia. 10" , Sch. 40	Nos.	20
ii	Dia. 6" , Sch. 40	Nos.	20
iii	Dia. 4" , Sch. 40	Nos.	15
iv	Dia. 2" , Sch. 40	Nos.	15
3.2	Reducing Tee. B.W, ASTM A-234 Gr. WPB as per ASME B16.9		

i	10" x 6" Sch. 40	Nos.	30
ii	10" X 4" Sch. 40	Nos.	30
iii	4" x 2" Sch. 40	Nos.	20
4.0	REDUCERS		
	Concentric Reducers ,B.W, ASTM A-234 Gr. WPB as per ASME B16.9		
i	10"X 6" Sch. 40	Nos.	15
ii	6"x 4" Sch.40	Nos.	20
iii	4"x 3" Sch. 40	Nos.	10
iv	4"x 2"" Sch. 40	Nos.	15
v	3" x 6" Sch.40	Nos.	10
5.0	BALL VALVE		
	Ball Valve RF 300#,Bolted Body, Replaceable Ball & Seats, Full Port, Trunion Mounted Top Entry Ball Valve, Gear Operated,as per ASME B-16.5 Body material ASTM A216 WCB, Stem/Ball material A 351 CF8M, Seal PTFE,Design As per API 6D Fire Safe, Antistatic.		
i	Dia. 6"	Nos.	10
6.0	GATE VALVE		
	Gate Valve RF 150#,OS&Y, Bolted Bonnet & Gland, Solid Wedge & Renewable Seats,ASME B-16.5,Body material,A-216 GR. WCB,Handwheel Operated,Trim material 316 S.STEEL,Design as per API 600.		
i	Dia. 10"	Nos.	20
ii	Dia. 6"	Nos.	20
iii	Dia.4"	Nos.	10
iv	Dia. 2"	Nos.	10
7.0	CHECK VALVES		
7.1	Check Valve RF 150#, Bolted Bonnet, Swing Type & Renewable Seats,ASME B-16.5 Body material A-216 GR. WCB,Trim material 316 S.STEEL,Design as per ASME B 16.34		
i	Dia. 6"	Nos.	8

ii	Dia. 4"	Nos.	6
iii	Dia. 2"	Nos.	4
8.0	GLOBE VALVE		
8.1	Globe Valve, RF, 150# RF, OS&Y, Bolted Bonnet Body, Gland, Renewable seat, Body A-216 GR. WCB. Trim: 316 S.Steel. Handwheel Operated As per ASME B 16.34		
i	Dia. 6"	Nos.	8
ii	Dia. 4"	Nos.	4
iii	Dia. 2"	Nos.	4
9.0	BUTTERFLY VALVE		
9.1	Butterfly Valve, 150#, RF(ASME B16.5), as per API 609		
i	Dia. 6"	Nos.	4
ii	Dia. 4"	Nos.	4
10.0	STRAINER		
10.1	Y-Type Strainer 150# RF ASTM A-216 Gr.WCB		
i	Dia. 6" 150#	Nos.	8
ii	Dia. 4" 150#	Nos.	4
11.0	FLANGES		
11.1	Flange, WN, 300#, R.F, as per ASME B 16.5, Material: ASTM A-105		
i	Dia. 6" Sch. 40	Nos.	40
11.2	Flange, WN, 150#, R.F, as per ASME B 16.5, Material: ASTM A-105		
i	Dia. 10" Sch. 40	Nos.	20
ii	Dia. 6" Sch. 40	Nos.	130
iii	Dia. 4" Sch. 40	Nos.	40
iv	Dia. 2" Sch. 40	Nos.	40
11.3	Blind Flange, 300#, RF, as per ASME B 16.5, Material: ASTM A-105,		
	Dia. 6" Sch. 40		

11.4	Blind Flange,150#, RF, as per ASME B 16.5, Material: ASTM A-105,		
i	Dia. 10" Sch. 40	Nos.	10
ii	Dia. 6" Sch. 40	Nos.	10
iii	Dia. 4" Sch. 40	Nos.	4
iv	Dia. 2" Sch. 40	Nos.	4
14.0	GASKETS		
14.1	Gasket, 3mm Thick, Compressed Graphite filled, Spiral Wound, 304 S.S Central Ring, as per ASME 16.20		
i	Dia. 6" 300#	Nos.	50
ii	Dia. 10" 150#	Nos.	50
iii	Dia. 6" 150#	Nos.	120
iv	Dia. 4" 150#	Nos.	40
v	Dia. 2" 150#	Nos.	40
15.0	STUDS/NUTS		
15.1	Studs with 2 Nuts, Stud Material : A 193 Gr. B7M ,Cadmium Plated and Nuts Material : A 194 Gr. 2HM,Cadmium Plated		
i	7/8" x 121 mm Long	Nos.	200
ii	3/4" x 102 mm Long	Nos.	1000
iii	5/8" x 85 mm Long	Nos.	300
16.0	THREDOLET		
16.1	Weldolet, BW, as per ASME B 16.9 Material: ASTM A-105		
i	3/4" ; 3000#	Nos.	40